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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2010; month=11; day=9; hr=12; min=38; sec=40; ms=966; ]

=====

Application No: 10580085 Version No: 3.0

Input Set:

Output Set:

**Started:** 2010-11-09 12:21:27.054  
**Finished:** 2010-11-09 12:21:36.839  
**Elapsed:** 0 hr(s) 0 min(s) 9 sec(s) 785 ms  
**Total Warnings:** 18  
**Total Errors:** 58  
**No. of SeqIDs Defined:** 37  
**Actual SeqID Count:** 37

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (5)
W 402	Undefined organism found in <213> in SEQ ID (6)
W 402	Undefined organism found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
E 257	Invalid sequence data feature in <221> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
E 257	Invalid sequence data feature in <221> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)

**Input Set:**

**Output Set:**

**Started:** 2010-11-09 12:21:27.054  
**Finished:** 2010-11-09 12:21:36.839  
**Elapsed:** 0 hr(s) 0 min(s) 9 sec(s) 785 ms  
**Total Warnings:** 18  
**Total Errors:** 58  
**No. of SeqIDs Defined:** 37  
**Actual SeqID Count:** 37

Error code	Error Description
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17) This error has occurred more than 20 times, will not be displayed
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)
W 402	Undefined organism found in <213> in SEQ ID (23)
W 402	Undefined organism found in <213> in SEQ ID (27)
W 402	Undefined organism found in <213> in SEQ ID (28)
W 402	Undefined organism found in <213> in SEQ ID (33)
W 213	Artificial or Unknown found in <213> in SEQ ID (35)
W 213	Artificial or Unknown found in <213> in SEQ ID (36)
W 213	Artificial or Unknown found in <213> in SEQ ID (37)

# SEQUENCE LISTING

<110> FRANKARD, VALERIE  
MIRONOV, VLADIMIR

<120> PLANTS HAVING MODIFIED GROWTH CHARACTERISTICS AND A METHOD FOR  
MAKING THE SAME

<130> 4559-061539

<140> 10580085

<141> 2010-11-09

<150> PCT/EP2004/053030

<151> 2004-11-19

<150> 60/528,113

<151> 2003-12-09

<150> EP 03104280.7

<151> 2003-11-19

<160> 37

<170> PatentIn version 3.5

<210> 1

<211> 1428

<212> DNA

<213> Nicotiana tabacum

<220>

<223> Seedy1 coding sequence (CDS0689)

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ctgaaacccc tttcggtttag gccatcagat tcctttgaat ctgatttgtc aagtaaggaa	180
aatcaaactc ctttatttga gaattcatct gttaatatct catctccgtt acccataaag	240
ccacttaacc ctaatggggc tctggaaaat tcaagactca agccgaacaa gcccaattcc	300
aaacagagtc ttgatgagat ggcggctaga aagagcggaa agggaaatga tttccgtgat	360
gagaagaaaa tagacgagga aattgaagaa attcagatgg agattagtag gttgagttca	420
agattagagg ctttgagaat tgaaaaggct gagaaaactg ttgctaagac tgttgaaaag	480
cgaggaaggg ttgtggcagc aaagtttatg gagccaaaac aaagtgttat taagattgaa	540
gagcgtatat caatgagtgc aagaacaaag gtggagcaga gaaggggtct tagtttagga	600

ccatctgaga tttttactgg aacgcggcgg cgagggttga gtatggggcc atcagatatt	660
ctagcagggg caacaaaggc acggcaattg ggaaagcaag agatgattat tactcctatt	720
cagccaatac aaaacaggcg aaagtcgtgt ttttgaagc ttcaagagat tgaagaagag	780
ggaaaaagtt caagccttag tcctaaatca agaaaaactg ctgcaagaac aatgggtaca	840
acaaggcagg cagttactac aattgcatca aagaagaatt tgaaaaaaga tgatggactt	900
ttgagttcag ttcagccaaa gaagttgttt aaagatctcg aaaagtctgc tgctgctaata	960
aagaagcccc agaggccggg gagggttgtg gctagtaggt ataatcagag tacaattcag	1020
tcatcagtag tgagaaagag gtctttacct gaaaatgata aggatgagag taagagaaat	1080
gataagaaac ggtcgttatc tgtagggaaa acgcgtgtgt ctcaaactga gagcaagaat	1140
ttgggtactg aaagtagggg gaaaaagaga tgggaaattc ctagtgagat tgtagttcat	1200
ggaaacacag agagtgagaa atctccacta agcattattg tgaagcctga tttgcttccg	1260
cgaattagga ttgctcggtg tgtgaatgag actcttaggg attctggacc tgctaaaaga	1320
atgatagagt tgataggcaa gaaatcgttt ttcagtagtg atgaagataa ggagccacct	1380
gtctgtcaag ttttaagttt tgcagaggaa gatgctgaag aggaataa	1428

<210> 2

<211> 475

<212> PRT

<213> Nicotiana tabacum

<220>

<223> Seedy1 protein (CDS0689)

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Met Ser Val Leu Gln Tyr Pro Glu Gly Ile Asp Pro Ala Asp Val Gln

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Ile Trp Asn Asn Ala Ala Phe Asp Asn Gly Asp Ser Glu Asp Leu Ser

20	25	30
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Ser Leu Lys Arg Ser Trp Ser Pro Leu Lys Pro Leu Ser Val Arg Pro

35	40	45
----	----	----

Ser Asp Ser Phe Glu Ser Asp Leu Ser Ser Lys Glu Asn Gln Thr Pro

50	55	60
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Leu Phe Glu Asn Ser Ser Val Asn Leu Ser Ser Pro Leu Pro Ile Lys

65	70	75	80
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Pro Leu Asn Pro Asn Gly Ala Leu Glu Asn Ser Arg Leu Lys Pro Asn  
85 90 95

Lys Pro Asn Ser Lys Gln Ser Leu Asp Glu Met Ala Ala Arg Lys Ser  
100 105 110

Gly Lys Gly Asn Asp Phe Arg Asp Glu Lys Lys Ile Asp Glu Glu Ile  
115 120 125

Glu Glu Ile Gln Met Glu Ile Ser Arg Leu Ser Ser Arg Leu Glu Ala  
130 135 140

Leu Arg Ile Glu Lys Ala Glu Lys Thr Val Ala Lys Thr Val Glu Lys  
145 150 155 160

Arg Gly Arg Val Val Ala Ala Lys Phe Met Glu Pro Lys Gln Ser Val  
165 170 175

Ile Lys Ile Glu Glu Arg Ile Ser Met Ser Ala Arg Thr Lys Val Glu  
180 185 190

Gln Arg Arg Gly Leu Ser Leu Gly Pro Ser Glu Ile Phe Thr Gly Thr  
195 200 205

Arg Arg Arg Gly Leu Ser Met Gly Pro Ser Asp Ile Leu Ala Gly Thr  
210 215 220

Thr Lys Ala Arg Gln Leu Gly Lys Gln Glu Met Ile Ile Thr Pro Ile  
225 230 235 240

Gln Pro Ile Gln Asn Arg Arg Lys Ser Cys Phe Trp Lys Leu Gln Glu  
245 250 255

Ile Glu Glu Glu Gly Lys Ser Ser Ser Leu Ser Pro Lys Ser Arg Lys  
260 265 270

Thr Ala Ala Arg Thr Met Val Thr Thr Arg Gln Ala Val Thr Thr Ile  
275 280 285

Ala Ser Lys Lys Asn Leu Lys Lys Asp Asp Gly Leu Leu Ser Ser Val  
290 295 300

Gln Pro Lys Lys Leu Phe Lys Asp Leu Glu Lys Ser Ala Ala Ala Asn  
305 310 315 320

Lys Lys Pro Gln Arg Pro Gly Arg Val Val Ala Ser Arg Tyr Asn Gln  
325 330 335

Ser Thr Ile Gln Ser Ser Val Val Arg Lys Arg Ser Leu Pro Glu Asn  
340 345 350

Asp Lys Asp Glu Ser Lys Arg Asn Asp Lys Lys Arg Ser Leu Ser Val  
355 360 365

Gly Lys Thr Arg Val Ser Gln Thr Glu Ser Lys Asn Leu Gly Thr Glu  
370 375 380

Ser Arg Val Lys Lys Arg Trp Glu Ile Pro Ser Glu Ile Val Val His  
385 390 395 400

Gly Asn Thr Glu Ser Glu Lys Ser Pro Leu Ser Ile Ile Val Lys Pro  
405 410 415

Asp Leu Leu Pro Arg Ile Arg Ile Ala Arg Cys Val Asn Glu Thr Leu  
420 425 430

Arg Asp Ser Gly Pro Ala Lys Arg Met Ile Glu Leu Ile Gly Lys Lys  
435 440 445

Ser Phe Phe Ser Ser Asp Glu Asp Lys Glu Pro Pro Val Cys Gln Val  
450 455 460

Leu Ser Phe Ala Glu Glu Asp Ala Glu Glu Glu  
465 470 475

<210> 3

<211> 1336

<212> DNA

<213> Oryza sativa

<220>

<223> Seedy1 coding sequence

<400> 3

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ggcgacaagg agaatcacgc ccccgaggtt gttgatgtcg ccgccggcta cgacgtcgag	180
gccgagatcg gccacatcga ggcgagatc ctgcgcctct cgtcccggct ccaccatctc	240
cgcgtctcca agcagccgga gcccacccgc gacgacgtc cgatggggga gatggtcgcg	300
aaggtgaggc cccggccgag gggcctcagc ctcgggcccc tggatgtgat ctccatcgtc	360
aatcgtgaga agcatccgct gcgcaccaag cagcctccgg cgacgcgggg cagggggctc	420
agcctcgggc ccatggagat cgccgcggcg aaccctaggg tgcccgcggc ggcgcagcat	480
cagcaacagc aacgcgctgg cacggcgcgg atcctgaagc caatcaagga gcctccggtg	540
cagcgtcgca ggggcgtcag cctcggggcg ttggagatcc accacggcgt cggcagcaag	600
gcaccagcgg cggcgcgagc caagccgttc accaccaagc tcaacgccat tcgagaagaa	660
acccgaccct ccaagcaatt cgccgtcccc gccaagccat ggccgtcgag caatacaagg	720
cagacactgg actcgaggca aggaacagca gcaagtcgag cgaaggcgag gagcccgagc	780
cccaggccca ggaggcaatc caatggcaag gctactgaca caaggggagg caacaaggtg	840
gtggatgagc tcaagcccaa aggtgcgtcg tcaagtcaga gcggcagcgc cgccgccgcc	900
gccactgcca agaggatggc ggggagctcc aagatgaggg tcatcccgag ccgctacagc	960
ctcactcctg gcgcttcctt tggaaagcagt ggagcacagg agaggcgacg caagcagtct	1020
ctcccaggat catcagggga tgccaaccag aatgaggaaa tcagagcgaa ggtcatcgag	1080
ccttccaatg atccactctc tcctcaaacg atctccaagg ttgctgaaat gctcccaaag	1140
atcaggacca tgccgcctcc tgacgagagc cctcgcgatt ccggatgcgc caagcggggt	1200
gccgaattgg tcgggaagcg ctcgttcttc acggctgcag ccgaggacgg gcgggcgctc	1260
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ttccttccat cagctc	1336

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 <212> PRT  
 <213> Oryza sativa

<220>  
 <223> Seedy1 protein

<400> 4  
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 1 5 10 15



Ala Phe Asp Asp Ser Ser Cys Ser Arg Ser Ala Trp Leu Pro Gln Ser  
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Pro Ala Val Ala Ala Val Arg Lys Gly Asp Lys Glu Asn His Arg Pro  
35 40 45

Glu Val Val Asp Val Ala Ala Gly Tyr Asp Val Glu Ala Glu Ile Gly  
50 55 60

His Ile Glu Ala Glu Ile Leu Arg Leu Ser Ser Arg Leu His His Leu  
65 70 75 80

Arg Val Ser Lys Gln Pro Glu Pro Asn Arg Asp Asp Ala Pro Met Gly  
85 90 95

Glu Met Val Ala Lys Val Arg Pro Arg Pro Arg Gly Leu Ser Leu Gly  
100 105 110

Pro Leu Asp Val Ile Ser Ile Val Asn Arg Glu Lys His Pro Leu Arg  
115 120 125

Thr Lys Gln Pro Pro Ala Thr Arg Gly Arg Gly Leu Ser Leu Gly Pro  
130 135 140

Met Glu Ile Ala Ala Ala Asn Pro Arg Val Pro Ala Ala Ala Gln His  
145 150 155 160

Gln Gln Gln Gln Arg Ala Gly Thr Ala Arg Ile Leu Lys Pro Ile Lys  
165 170 175

Glu Pro Pro Val Gln Arg Arg Arg Gly Val Ser Leu Gly Pro Leu Glu  
180 185 190

Ile His His Gly Val Gly Ser Lys Ala Pro Ala Ala Ala Arg Ala Lys  
195 200 205

Pro Phe Thr Thr Lys Leu Asn Ala Ile Arg Glu Glu Thr Arg Pro Ser  
210 215 220

Lys Gln Phe Ala Val Pro Ala Lys Pro Trp Pro Ser Ser Asn Thr Arg  
225 230 235 240

Gln Thr Leu Asp Ser Arg Gln Gly Thr Ala Ala Ser Arg Ala Lys Ala  
245 250 255

Arg Ser Pro Ser Pro Arg Pro Arg Arg Gln Ser Asn Gly Lys Ala Thr  
260 265 270

Asp Thr Arg Gly Gly Asn Lys Val Val Asp Glu Leu Lys Pro Lys Gly  
275 280 285

Ala Ser Ser Ser Gln Ser Gly Ser Ala Ala Ala Ala Ala Thr Ala Lys  
290 295 300

Arg Met Ala Gly Ser Ser Lys Met Arg Val Ile Pro Ser Arg Tyr Ser  
305 310 315 320

Leu Thr Pro Gly Ala Ser Leu Gly Ser Ser Gly Ala Gln Glu Arg Arg  
325 330 335

Arg Lys Gln Ser Leu Pro Gly Ser Ser Gly Asp Ala Asn Gln Asn Glu  
340 345 350

Glu Ile Arg Ala Lys Val Ile Glu Pro Ser Asn Asp Pro Leu Ser Pro  
355 360 365

Gln Thr Ile Ser Lys Val Ala Glu Met Leu Pro Lys Ile Arg Thr Met  
370 375 380

Pro Pro Pro Asp Glu Ser Pro Arg Asp Ser Gly Cys Ala Lys Arg Val  
385 390 395 400

Ala Glu Leu Val Gly Lys Arg Ser Phe Phe Thr Ala Ala Ala Glu Asp  
405 410 415

Gly Arg Ala Leu Asp Val Glu Ala Pro Glu Ala Val Ala Glu Ala  
420 425 430

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<211> 1860

<212> DNA

<213> Medicago trunculata

<220>

<223> Seedy1 coding sequence

<400> 5

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aatcacatcg gagcgtgtat gagtagccgt ttcacatcca acggccagta agagcgtaac	180
tttatttctt ccctcttcaa tctccaacgg tcacataatc tcttccaaat acaaataatt	240
ccctctttca acctcactct tcattttcttc aacccaaacc caaaaaacta atcagattct	300
tcttaaattct tgaaaccttt ctcccaaaag cacttaaata aaaaagcact taaccatgaa	360
taacacaaac aacaacaaca ttctttcttca ttccacacag gttcaagtgt ggaacaacgc	420
agcattcgat ggtgaagatt tcgccatgaa ttcatcttct gattccatca aagagaatct	480
aaacccatcc gcattcaaca ttgttccttc ttcaaacaaa agaactattg atgatgaaat	540
tgcggaattt gaaagtgaat ttaagcgatt aacttcgaag ctggaattgc ttcgtgttga	600
aaaagctgaa agaaaaatcg cttctgaaaa gcgtgttagt ggaattggta ctggaagaat	660
agtagcagcg aagtttatgg aaccgaagaa aaacgttaca ccgaaacgaa acggtgtcgt	720
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taattggaga agagggatga gtttaggtcc gatggagatt gccgggaaag tgatggcacc	840
gccggcgatg acgattactc cggcgacggg gaatcggagg aagtcttggt tctggaaacc	900
gcaggaaagt tgtgaagtaa tgccgtcggg gattactccg gcgacggtga ataggaggaa	960
atcttgtttt ttgaaacctc aagaaagttg tgaagaaaat cgaagaaaaa cgatttgcaa	1020
accgaatttg aatttgaatt caaattcagt taattctgcg gttggatcga ttaagcgtgt	1080
gaagaagaaa gatgaagaaa ttgctcaggt tcaaccgaag aagctgtttg aaggtgaaaa	1140
atcagtgaag aaatcgttga aacaaggtag aattgttgca agccggtata attccggtgg	1200
tggtggtggt gatgagagga aaagatcggt ttcggagaat aataagggtt tagggagtga	1260
aatcagggtc aagaagagat gggagatacc aattgaagaa gtggatgtga gtggttttgt	1320
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ggagagagtg atggtggagg aagaagggtg ttctgtttgt caggttttga attttgcgtga	1500
agatgatgat gatgatgatg attatggtga acaagggtaa ttgtggaaat tggaattgat	1560
ttgtttttgt ggggttgtgt ggaactggct atgttctgct tgattctttt gcattttggt	1620
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tgaaataata acaacaagca tgtgtcttgc ttaataattg tatattgttt tgtttgtttt	1740
ataatgatat ggatttaatt tgtatacaca atataatata gtatgcattg agagagtttt	1800
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 <213> Medicago trunculata

<220>  
 <223> Seedy1 protein

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 20 25 30

Ser Ser Ser Asp Ser Ile Lys Glu Asn Leu Asn Pro Ser Ala Phe Asn  
 35 40 45

Ile Val Pro Ser Ser Asn Lys Arg Thr Ile Asp Asp Glu Ile Ala Glu  
 50 55 60

Ile Glu Ser Glu Ile Lys Arg Leu Thr Ser Lys Leu Glu Leu Leu Arg  
 65 70 75 80

Val Glu Lys Ala Glu Arg Lys Ile Ala Ser Glu Lys Arg Val Ser Gly  
 85 90 95

Ile Gly Thr Gly Arg Ile Val Ala Ala Lys Phe Met Glu Pro Lys Lys  
 100 105 110

Asn Val Thr Pro Lys Arg Asn Gly Val Val Phe Lys Glu Glu Thr Pro  
 115 120 125

Lys Arg Asn Gly Val Val Ser Asp Thr Pro Lys Ser Arg Val Asn Trp  
 130 135 140

Arg Arg Gly Met Ser Leu Gly Pro Met Glu Ile Ala Gly Lys Val Met  
 145 150 155 160

Ala Pro Pro Ala Met Thr Ile Thr Pro Ala Thr Val Asn Arg Arg Lys  
165 170 175

Ser Cys Phe Trp Lys Pro Gln Glu Ser Cys Glu Val Met Pro Ser Gly  
180 185 190

Ile Thr Pro Ala Thr Val Asn Arg Arg Lys Ser Cys Phe Leu Lys Pro  
195 200 205

Gln Glu Ser Cys Glu Glu Asn Arg Arg Lys Thr Ile Cys Lys Pro Asn  
210 215 220

Leu Asn Leu Asn Ser Asn Ser Val Asn Ser Ala Val Gly Ser Ile Lys  
225 230 235 240

Arg Val Lys Lys Lys Asp Glu Glu Ile Ala Gln Val Gln Pro Lys Lys  
245 250 255

Leu Phe Glu Gly Glu Lys Ser Val Lys Lys Ser Leu Lys Gln Gly Arg  
260 265 270

Ile Val Ala Ser Arg Tyr Asn Ser Gly Gly Gly Gly Gly Asp Ala Arg  
275 280 285

Lys Arg Ser Phe Ser Glu Asn Asn Lys Gly Leu Gly Ser Glu Ile Arg  
290 295 300

Ala Lys Lys Arg Trp Glu Ile Pro Ile Glu Glu Val Asp Val Ser Gly  
305 310 315 320

Phe Val Met Leu Pro Lys Ile Ser Thr Met Arg Phe Val Asp Glu Ser  
325 330 335

Pro Arg Asp Ser Gly Ala Val Lys Arg Val Ala Glu Leu Asn Gly Lys  
340 345